



APHIS

Aquaculture Industry Report

August 1997

United States Department of Agriculture • Animal and Plant Health Inspection Service

American aquaculture isn't just about fish farming. It isn't just about regulation, and it isn't just about aquatic animal health. It's about cooperation between industry, government, and academia.

This last quarter has held some exciting times for cooperative aquacultural interests all across the Nation. With the help of the Animal and Plant Health Inspection Service's (APHIS) Wildlife Services (WS) program (formerly Animal Damage Control), two graduate students and a professor at Utah State University's Department of Fisheries and Wildlife published a must-read pamphlet for industry entitled *Overview of Techniques for Reducing Bird Predation at Aquaculture Facilities*. WS participated in several aquaculture-related workshops in Pennsylvania and Nebraska. For the Pennsylvania meeting, which was attended by industry cooperators from all over the Northeast, WS published a new brochure. We describe it later in this report and include instructions on how you can request your own copy.

More recently, APHIS' Veterinary Services (VS) held its second aquaculture industry roundtable. One of the more important aspects of this meeting was the creation of three themes: bird depredation, the recognition of aquaculture products as livestock, and how APHIS can improve its cooperation with the aquaculture industry. Information on obtaining a copy is contained in this issue of the *Aquaculture Industry Report*.

Through cooperative efforts at all levels, I believe aquaculture producers can look forward to rapid growth in one of America's newest agricultural ventures.

Sincerely,
Terry L. Medley
APHIS Administrator

Depredation Prevention Efforts

WS officials recently set out to protect cultivated trout at a small farm in Nebraska. WS personnel utilized two propane cannons to scare away several blue herons. WS also gave the producer instructions on how to prevent depredation through the use of scare tactics and pyrotechnics.

The California WS program presented "How To Protect Your Crop" at the 1997 California Aquaculture Association Conference and Trade Show last March. The focus of the presentation was advances in bird control technology.

The Jack H. Berryman Institute for Wildlife Damage Management and the International Association of Fish and Wildlife Agencies has published a pamphlet entitled "Overview of Techniques for Reducing Bird Predation at

Aquaculture Facilities." This publication, written by two graduate students and a professor at Utah State University, provides techniques for reducing bird damage and includes topics such as barriers, frightening techniques, and the location and design of a facility. At the end of the pamphlet, there is a listing of WS regional offices and companies that provide devices for depredation management.

New APHIS Publication on Northeast Bird Predation

In June, APHIS published a 17-page black-and-white brochure entitled "Bird Predation and Its Control at Aquaculture Facilities in the Northeastern United States" (APHIS 11-55-009). This publication was developed by WS' Jim Glahn for use at an aquaculture producers educational workshop held in central Pennsylvania.

Although some of the content is region specific, the text also covers topics of general interest, including overhead wire systems, perimeter fencing, pyrotechnics, lethal control of predators, and economics of predator control.

Supplies of this brochure have already been made available at WS offices in the Northeast. But subscribers to this report may request a free copy by contacting Glahn at USDA, APHIS, WS, P.O. Drawer 6009, Mississippi State, MS 39762-6099, (601) 325-8215. If e-mail is more convenient, write to jglahn@netdoor.com

On the Move

Wayne Zeilenga, D.V.M., a veterinary medical officer (VMO) with APHIS' VS in Montpelier, VT, has become a voting member of the New England Salmonid Health Committee, a subcommittee of the New England Atlantic Salmon Committee.

Aquaculture Expansion in Puerto Rico

The Puerto Rican Department of Agriculture's Veterinary Services Division (VSD), through the State Veterinary Diagnostic Laboratory and the Fisheries and Aquaculture Division, is working toward the development of a diagnostic and epidemiologic project (DEP) for aquaculture and fisheries. The first step in this process was identifying specific areas in which to work, taking into consideration the needs of the industry, academia, and other government agencies in Puerto Rico. It was determined that the main areas of interest are veterinary diagnostics and health certification. Hector J. Garcia, State Veterinarian and Director for the VSD, and Jamie Gonzalez, State aquaculture coordinator and director for the Fisheries and Aquaculture Division, agreed to unify efforts toward the development of the DEP. Cesar Ruiz is serving as aquaculture coordinator for the VSD. The initial stages of the DEP will involve education, training, funding, and the development of a

laboratory diagnostic protocol for aquatic species. According to Ruiz, USDA-APHIS-VS should provide epidemiology advice and support and expertise in the use of Geographic Information Systems to facilitate the creation of an effective aquaculture surveillance system and the subsequent crop-health status certification program.

New Aquaculture Threat in Georgia

The Asian eel (*Monopterus albus*), in the United States a descendant of exotic aquarium pets set free in the wild, is adapting, reproducing, and making itself at home in several south Georgia ponds. The eel, a flesh-eating predator that can grow as long as 3 feet, has been found in three ponds thus far. Officials fear this exotic predator may soon find its way into Georgia's streams and rivers and from there infest not only Georgia but Alabama and Florida as well.

Catfish '97

VS' National Animal Health Monitoring System undertook the Catfish '97 study to provide the aquaculture industry with information regarding catfish health and management practices at the national level for education and research. The study was a cooperative effort between State and Federal agricultural statisticians, animal health officials, university researchers, and extension personnel. Four States were selected to be included in the study—Alabama, Arkansas, Louisiana, and Mississippi. These four States represented 95.9 percent of the total national catfish sales in 1996 and 93.5 percent of the water surface acres to be used for catfish production in the first 6 months of 1997.

The May '97 report, the first in a series, focuses on diseases of aquatic vertebrates and the production of food-size fish. The next report will describe management practices used in the industry. For more information or a copy of the report, contact

U.S. Department of Agriculture (USDA-APHIS-VS,
Centers for Epidemiology and Animal Health
Attn.: NAHMS
555 South Howes
Fort Collins, CO 80521

Or contact NAHMS via the Internet:

E-mail: NAHMS_INFO@aphis.usda.gov

Website: www.aphis.usda.gov/vs/ceah/cahm

APHIS Aquaculture Roundtable

In a May meeting of the minds, officials from USDA and the aquaculture industry came together in Riverdale, MD, to forge a plan for future cooperation. The goals of the roundtable were to identify and clarify the needs of the aquaculture industry and to frame a cooperative process between APHIS and the industry to respond to those needs.

The meeting started with an aquaculture overview from the USDA-APHIS perspective. Speakers from USDA discussed all aspects of the industry, including bird depredation, international trade, the results of an APHIS-industry aquaculture survey, preparations for a proposed national aquatic animal health reporting system, the current capacity for aquatic animal disease diagnostic testing and

biologics review at the National Veterinary Services Laboratories, and legal issues related to aquaculture and USDA involvement. Spokespeople from the industry also presented material and shared their concerns with each other and with USDA representatives.

Three main issues were offered for discussion: the need to recognize aquaculture producers as farmers and their products as being livestock and farm animals, the need for APHIS to form a true partnership with the aquaculture industries to resolve hard-to-manage issues and develop services customized to meet the varied needs of industry segments, and a continuing need to solve bird depredation problems.

A final report on the roundtable is currently being produced cooperatively with industry and will soon be available. To receive a copy, e-mail Otis Miller at omiller@aphis.usda.gov or phone (301) 734-4914.

VMO's Receive Specialized Training

The first of four regional training sessions for VMO's just wrapped up at the University of Florida, and attendees proclaimed it a success. The specialized training course prepared VMO's to provide international export assistance. It also trained them to perform onsite farm inspections, determine water quality, recognize clinical disease and recommend appropriate treatment, and properly collect, prepare, and ship appropriate samples to approved laboratories.

The second training course was held August 11 at the University of Arkansas in Pine Bluff. Two more training courses will be given later in the year, but locations have not yet been determined.

Shrimp Virus Work Group

On June 5, the Joint Subcommittee on Aquaculture (JSA) received a report prepared by the Shrimp Virus Work Group, an interagency group consisting of members from the U.S. Department of Commerce's National Marine Fisheries Service, USDA-APHIS, the U.S. Environmental Protection Agency's National Center for Environmental Assessment, and the U.S. Department of the Interior's U.S. Fish and Wildlife Service. The report is an evaluation of potential impacts of shrimp virus on cultured shrimp and wild shrimp populations in the Gulf of Mexico and Southeastern U.S. waters. It states that recent evidence indicates threats to the sustainability of U.S. marine resources due to increases in exotic shrimp viruses. The report recommends conducting an ecological risk assessment to further determine the hazards of shrimp disease and their effect upon the shrimp industry.

Also, given the scope and potential impact of the shrimp virus risk assessment, four stakeholder meetings were held in July so that the public could make comments. The meetings took place in Charleston, SC, Mobile, AL, Brownsville, TX, and Thibodaux, LA.

For a copy of the report or for more information regarding the stakeholder meetings, please contact Jerome Erbacher at erbacher@noaa.gov

Mycobacteria in Fish

Recent events in Florida have focused the public's attention upon a bacteria from the genus *Mycobacterium* that has been appearing in freshwater snook in Sarasota. The University of Florida's Cooperative Extension Service has released a factsheet called "Mycobacteriosis in Fish" that discusses the disease.

Three species of *Mycobacterium* have been reported to cause disease in fish: *M. marinum*, *M. fortuitum*, and *M. chelonae*.

Among fish, the most common method of transmission is ingestion. This can occur when fish are fed fish products that are not properly cooked or when dead fish are not promptly removed from the population.

Because there is no effective treatment for mycobacterial infection of fish, it is best to destroy infected stocks immediately.

If you would like a copy of factsheet UM-96, contact Andy Rose with the University of Florida's Cooperative Extension Service, 3600 S. Florida Ave., Inverness, FL 34450, (352) 726-2141.

To contribute information or to be added to the mailing list for this report, contact

Jim Rogers

USDA-APHIS, Legislative and Public Affairs

4700 River Road, Unit 51

Riverdale, MD 20737-1232

Telephone: (301) 734-8563

Internet: jrogers@aphis.usda.gov